

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method for selective salicidation of a semiconductor device, the method comprising the steps of:

providing a first gate structure having an n-type dopant therein and a second gate structure having a p-type dopant therein;

exposing at least only the first gate structure to an ozonated water bath; and

salicidizing the first and second gate structure whereby silicide is formed only over the second gate structure.

2. (Original) The method of claim 1, wherein the ozonated water bath includes no less than approximately 1 parts per million (ppm) and no greater than approximately 25 ppm of ozone (O₃).

3. (Original) The method of claim 2, wherein the ozonated water bath includes approximately 5 ppm of ozone (O₃).

4. (Original) The method of claim 1, wherein the exposing step includes exposing to ozonated water bath at a rate of approximately 30 standard liters per minute (slpm) of water (H₂O).

5. (Original) The method of claim 1, wherein the exposing step is conducted for no less than approximately 0.1 minutes and no greater than 10 minutes.
6. (Original) The method of claim 1, wherein the n-type dopant includes at least one of phosphorous and arsenic, and the p-type dopant includes at least one of boron and boron difluoride.
7. (Original) The method of claim 1, wherein the exposing step generates an interfacial layer.
8. (Original) The method of claim 1, wherein the saliciding step includes:
 - depositing a metal layer;
 - depositing a cap layer on the metal layer;
 - annealing to form a silicide; and
 - removing the cap layer and excess metal layer.
9. (Currently Amended) A method for selectively forming silicide on a semiconductor device, the method comprising the steps of:
 - providing a PFET and an NFET; and
 - chemically pretreating ~~at least~~ only the NFET to prevent silicide formation on the NFET.

10. (Original) The method of claim 9, wherein the pretreating step includes exposing at least the NFET to an ozonated water bath including no less than approximately 1 parts per million (ppm) and no greater than approximately 25 ppm of ozone (O₃).

11. (Original) The method of claim 10, wherein the exposing step generates an interfacial layer.

12. (Original) The method of claim 10, wherein the exposing step includes exposing to the ozonated water bath at a rate of approximately 30 standard liters per minute (slpm) of water (H₂O) for approximately 5 minutes.

13. (Currently Amended) A method of forming a silicide portion of a semiconductor, the method comprising the steps of:

providing a first gate structure having an n-type dopant therein and a second gate structure having a p-type dopant therein;

chemically pretreating ~~at least~~ only the NFET first gate structure to prevent silicide formation on the NFET first gate structure; and

salicidizing the first and second gate structure whereby silicide is formed only over the second gate structure.

14. (Original) The method of claim 13, wherein the pretreating step includes exposing at least the first structure to an ozonated water bath.

15. (Original) The method of claim 14, wherein the ozonated water bath includes no less than approximately 1 parts per million (ppm) and no greater than approximately 25 ppm of ozone (O_3).
16. (Original) The method of claim 15, wherein the ozonated water bath includes approximately 5 ppm of ozone (O_3).
17. (Original) The method of claim 14, wherein the exposing step generates an interfacial layer.
18. (Original) The method of claim 14, wherein the exposing step includes exposing to the ozonated water bath at a rate of approximately 30 standard liters per minute (slpm) of water (H_2O) for no less than approximately 0.1 minutes and no greater than 10 minutes.
19. (Original) The method of claim 13, wherein the n-type dopant includes at least one of phosphorous and arsenic, and the p-type dopant includes at least one of boron and boron difluoride.

20. (Original) The method of claim 13, wherein the salicidizing step includes:

- depositing a metal layer;
- depositing a cap layer on the metal layer;
- annealing to form a silicide; and
- removing the cap layer and excess metal layer.